# Operating Lease:
## Potential Application for
## Theater Support Vessel

**Presented to:**
**TSV Industry Day**
**PM Force Projection**
**TACOM**
**9 July 2003**

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**Advantages/Disadvantages**
**Key Characteristics**
**Special Purpose Entity**
**Financing**
**MYP Considerations**
**Termination Provisions**
**Indemnification**



TECHNOLOGY STRATEGIES ALLIANCES

# Advantages/Disadvantages

# Leasing Advantages

- **Lower upfront costs**
  - Typically, zero cost for 2-3 years, then 15-20% payments over 6 years
- **Typically, faster deliveries to warfighter**
  - Function of DoD "budget reality"
- **Early MYP – reduces costs**
  - Congress has demonstrated a willingness to grant MYP leases much earlier than MYP purchases
    - Primary rationale: Leasing is an extension of "try before you buy" – you can return the item at a fraction of the cost if it fails to meet expectations
      - BC Ferries should have leased their Pacificats – used only 7 mos, but paid 100%
      - Had BC Ferries leased: would have paid less than 50%
- **Ability to return item if dissatisfied -- manufacturing motivator not present with a purchase**
  - Termination clause acts as "dissatisfaction off-ramp"
- **FAR Part 12 commercial contract – mandates fixed-price – puts entire cost-performance risk on manufacturer**
  - Typical purchase is cost-plus for NRE and first several

# Leasing Disadvantages

- **Threat of budget spike will force follow-on procurements to be leases as well, unless weaned off lease with buy/lease annual mix**
  - **Example: in second lot, buy 1/3 of the deliveries, lease the rest**
  - **Positive impact: first time you buy, lease interest rates will drop**
- **More complex contract**
  - **Same as a commercial buy, but with added lease provisions/activities**
- **Someone will be exposed to interest rate fluctuations**
  - **Either government or manufacturer (if latter, expect to pay more)**
- **Program must pay for commercial insurance**
  - **DoD self-insures “for free” items it buys**
  - **A “Supplemental Rent Payment” pass-through from lessor to lessee**
- **Significant political effort to gain approval**
  - **Many view leasing as “incremental funding”**

# Key Characteristics

# Key Characteristics

- **DoD must notify Congress of intent to solicit lease prior to releasing Request for Proposal (if 5-yr or more lease term)**
  - **Does not necessarily require approval – 30-day Congressional review**
- **Lease will require Congressional authorization, including multiyear and termination liability provisions, prior to awarding contract**
  - **Probably will require Congressional “pre-support”**
- **To be viable for budget reasons, must be an operating lease**
  - **Pass/fail criteria outlined in OMB Circular A-11**
- **Need to also pass OMB Circular A-94 places great emphasis on lowering financing costs – both construction loan and lease itself**

# OMB Circular A-11 Criteria

- **Six criteria distinguish operating leases from capital leases**
  1) **Ownership remains with lessor throughout term of lease**
  2) **No bargain-price purchase option allowed**
  3) **Lease term does not exceed 75% of asset's economic lifetime**
  4) **PV of minimum lease payments cannot exceed 90% of initial fair market value**
  5) **Must be general purpose asset - not government unique**
     - Does not preclude adding customer-specified "options"
  6) **Asset must have a private-sector market**

- **Circular provides for potential future purchases via "Contingent Legislation"**
  - **The basis of your ability to negotiate a contingent purchase option and still have an operating lease**

# Lease-Unique Financial Characteristics

- **Financing**
  - Built w/ contract-backed construction loan -- no gov't progress payments
    - Construction loan interest costs included in sales price
  - Completed products are sold to leasing agent -- can be manufacturer,  equipment leasing company or a Special Purpose Entity (SPE)
- **Residual Value**
  - A <u>negotiated</u>, <u>predicted</u> Fair Market Value (FMV) for product at end of lease
  - Predicted vs actual FMV represents a risk that will impact lease rates
  - Critical component for gov't lease-vs-buy analysis
- **Interest Rates**
  - Lease rate is 100% dependent upon leasing agent's cost of capital
  - Key to negotiating a gov't lease: generate profit only from sale of manufactured goods -- treat leasing efforts as pass-

# Special Purpose Entity

# Goal: Lowest Possible Borrowing Rate

- **Special Purpose Entity (SPE):**
  - If manufacturer finances the lease, interest rate will be determined by manufacturer's credit worthiness
    - Lenders base their rate on company's assets & probability of company going bankrupt
  - With SPE financing the lease:
    - A separate, "bankruptcy-remote" company is formed for just this one lease
    - SPE's only assets are these leased aircraft; it's sole debt are bondholders
    - SPE would only go bankrupt if Fed Gov't defaults
    - Interest rate of lease loan will be much lower, based on contract terms and risk of loss if/when aircraft is sold to repay bonds
  - Post-ENRON, SPEs carry a negative connotation
    - ENRON's use of SPEs was fraudulent -- did not comply with accounting standards
      - Could have just as easily cheated on tax return
    - SPEs have been in legal use in this country for more than a century

# What is an SPE?

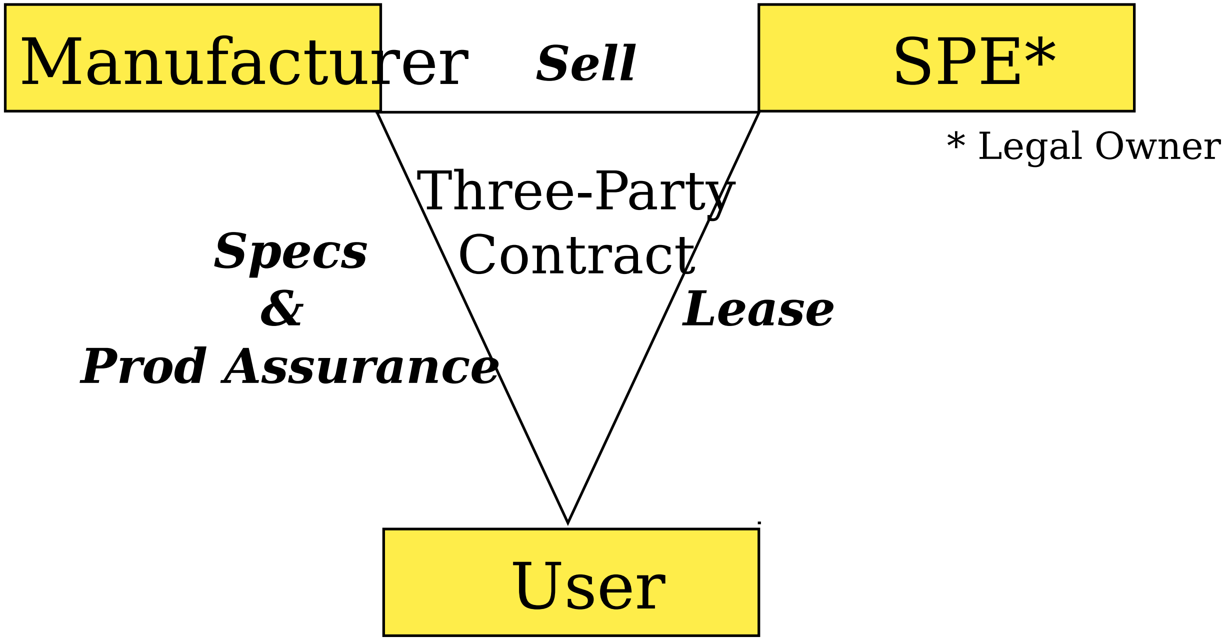
- **An SPE, Special Purpose Entity, is a legal entity commonly used in asset securitization and lease financing transactions**
  - Credit ratings of SPE securities are based solely on the assets held by the SPE
  - "… literally trillions of dollars in ordinary course financing transactions including asset-backed securities, mortgage-backed securities, project financings and other transactions. The availability of large and liquid markets for securities backed by credit cards, auto loans, leases, mortgages and dozens of other assets…. Virtually all transactions creating these securities use SPEs." *(source: 2003 Faegre & Benson LLP)*
  - Designed to conduct just one activity; clearly specified risks and cash flows – for several decades, a preferred form of raising capital *(source: "Financial Engineering with Special Purpose Entities," Dr B.G. Dharan, Rice University, 2002)*

- **An SPE is a stand-alone entity that legally separates ("bankruptcy remote") the assets involved in the financing from the other parties to the transaction**
  - Must comply with FASB rules and rating agency criteria
    - Independent director
    - Restrictions on objects and powers, including separateness covenants

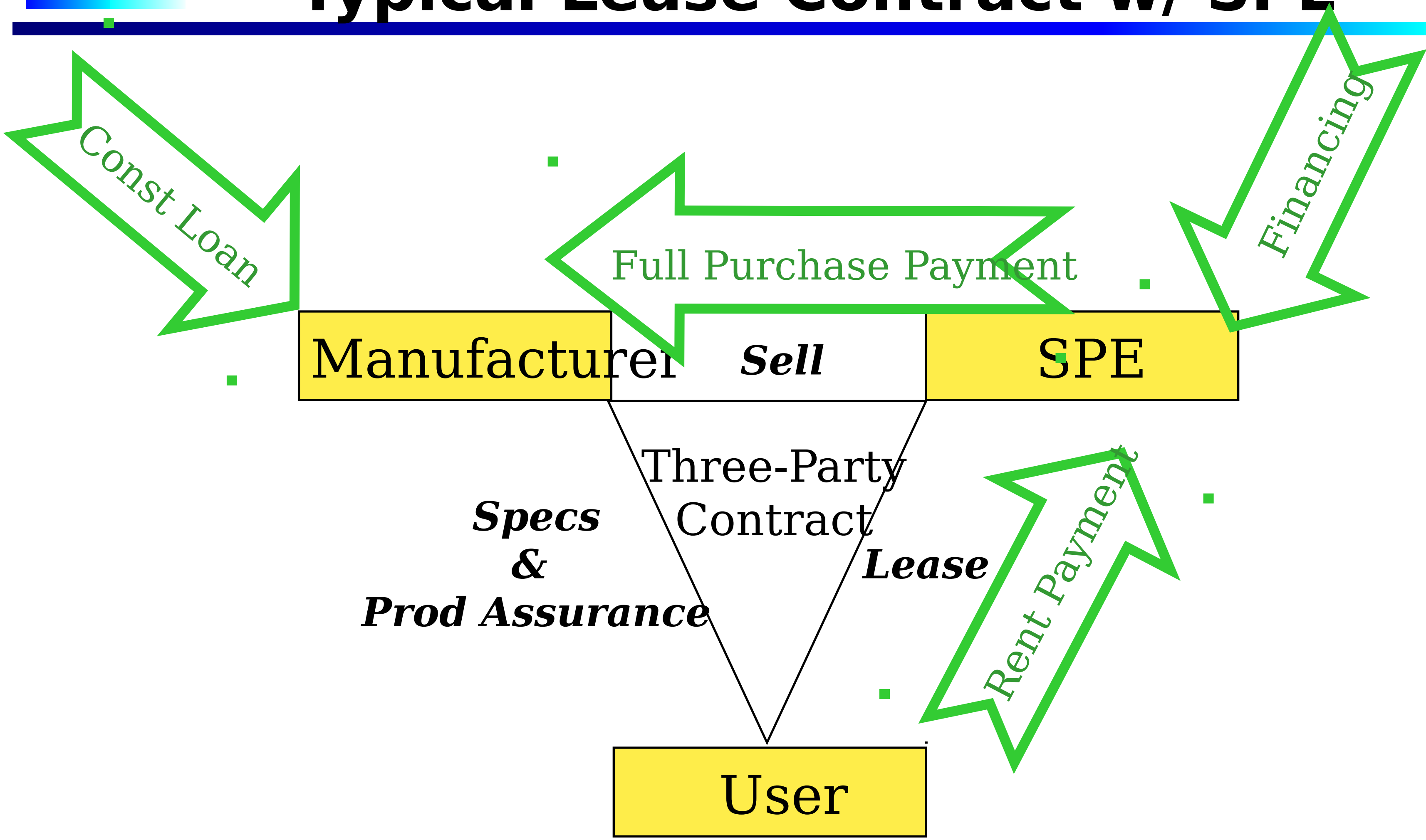
# SPEs: A Long History

- **In use since the late 19th Century** *(source: "Transplanting Asset Securitization," Houston Law Review, 2000)*
  - **Fannie Mae**
  - **Freddie Mac**
  - **Student Loan Agencies**
  - **Military Housing Real Estate Developers**
  - **Ford, Chrysler, GM**
  - **GE Capital, Citibank, Bank of America, JPMorgan Chase**
  - **Airline Industry: American, Delta, United, etc.**

# Typical Lease Contract w/ SPE



# Typical Lease Contract w/ SPE



# Financing

# Goal: Lowest Possible Borrowing Rate

- **12-Month Advance Rent Payment:**
  - Used to lower amount and term of borrowed funds
    - First payment upon delivery of aircraft (less $ borrowed)
    - Paying at beginning of yr, rather than at end, reduces loan term by 12 months
    - No impact on budget – just cuts obligation-expenditure lag
- **Termination Clauses**
  - No-Termination During Construction
    - Reduces construction loan financing risk to near-zero
  - All-or-Nothing Termination
    - Lowers chance of selective return of “bad actor” with low resale value
- **12-Month Termination Notification Period & 1-Year Rent Penalty**
  - Government effectively guarantees at least 2 payments
  - Takes advantage of typical year-long decision time to terminate a DoD system and remove it from the budget

# Goal: Lowest Possible Borrowing Rate

- **6-Year Lease with 6 Equal Payments**
  - For gov't analysis, "purchase" represents a long-term loan, financed with long-term Treasury bonds
  - Key to lease financing: offset Treasury rate superiority by funding lease with as much short-term (lower interest rate) debt as possible
- **Commercial bonds "tiered" into "tranches" to separate out and identify low-risk lending from higher-risk lending**
  - "G" – paid from the two gov't-guaranteed payments
    - Risk: None
    - Similar to "Agency Bond" currently at 22 bps above comparable Treasury bond
  - "A" – paid from the non-guaranteed gov't payments, but collateralized by the aircraft *if* lease is terminated early
    - Risk: early lease termination, resale value of aircraft
    - Similar to "AAA Prime Bond" currently at 62 bps above comparable Treasury bond
  - "B" – paid from resale of the aircraft after it is returned at end of lease; interest rate a function of gov't interest in owning the asset

# Goal: Low-Risk Predicted Resale Value

- **Risk to Government**
  - **If actual resale figure is *higher* than predicted, lease payments will have been higher than necessary and resale will generate a profit**
- **Risk to Lender**
  - **If actual resale figure is *lower* than predicted, lease payments will have been lower than necessary and resale will generate a loss**
    - **This is what drives a general commercial practice of lending only to an 80% loan-to-value ratio**
- **"Residual Value" is a Negotiated Number**
  - **Higher risk of resale loss will drive a higher interest rate which will in turn drive a higher lease payment**
  - **Negotiation will focus of risk/reward aspects of interest rate/resale value**
- **Lesson-Learned Approach**
  - **Analyze market place for reasonable resale prediction; lower the loan-to-value ratio to achieve lowest interest rate**
  - **Contract clause: resale profit (lease overpayment) rebated**

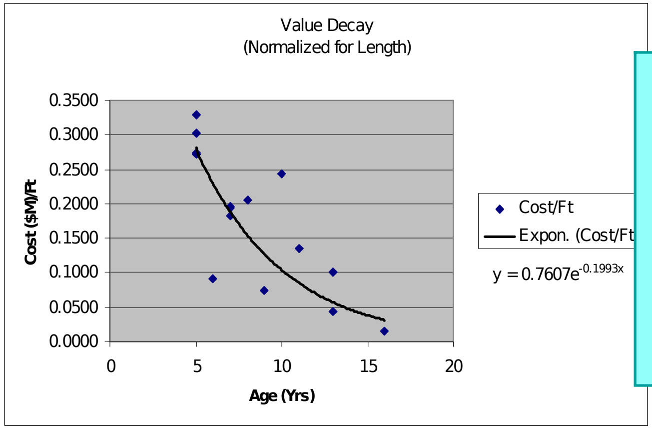
# Goal: Low-Risk Predicted Resale Value

- **Assumed Depreciation**
  - Based on market research
  - May need to depreciate customer-unique equipment separately if it is deemed to have less value on the used market than the “green” item
    - Boeing 737 & 767 lease unique equipment comprised about 35% of their initial price -- depreciated to zero at end

# TSV Initial Resale Analysis

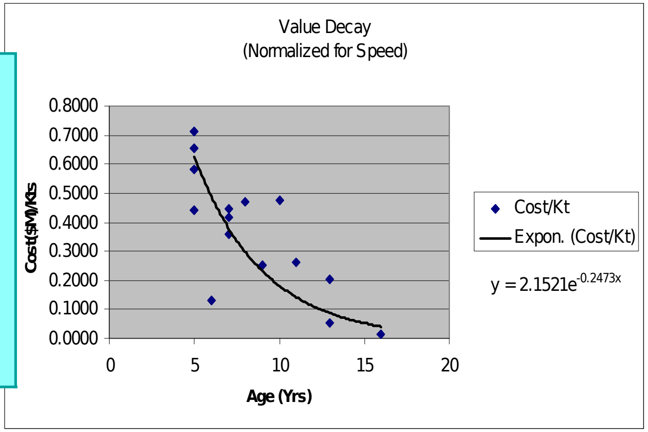
*Source: Ship Sales Intern'l, Inc*

## Parametrics with good correlation with new prices:

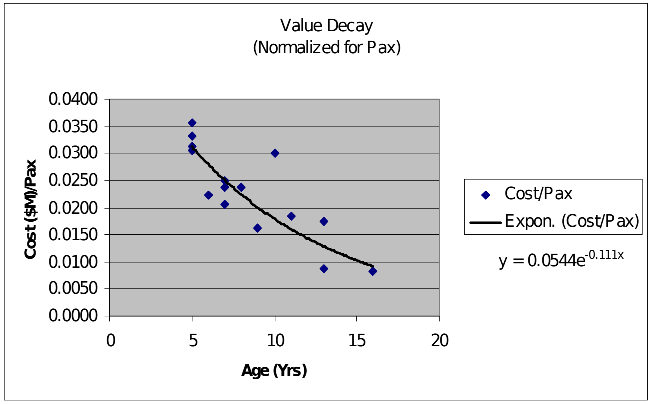


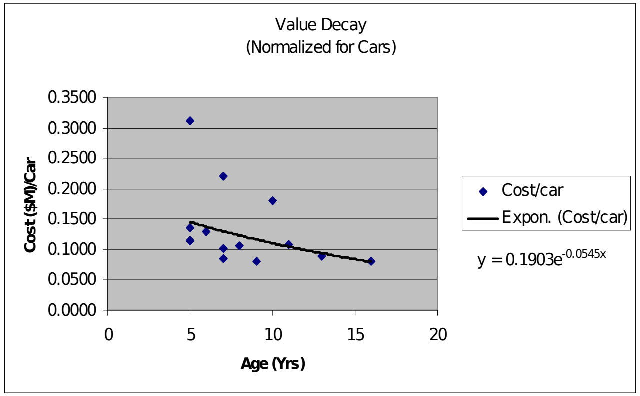

**S/L**
**Deprec Rate**
**20%**

**Economic**
**Service Life**
**20 yrs**




## Parametrics with poor correlation with new prices:




TECHNOLOGY STRATEGIES ALLIANCES

# BC Ferries' "Fast Ferry Fiasco"

- **Gov't must consider implications -- potential bondholders will**
  - After nearly 3 years of marketing efforts, 3 *Pacificat* fast ferries sold in a 10-minute auction for just 11% of original cost
    - Equivalent to 63% annual depreciation rate
    - 3-months use on average; one vessel was never put in operation
  - *Pacificat* experience showed that if vessels are terminated early due to technical problems, resale value will be little better than scrap
- **Potential Remedies**
  - Lower the predicted resale value
    - Higher change of gov't lease rent overpayment, but rebated at end of lease
  - Lower the Loan-to-Value ratio
    - Same effect as above, but may be more meaningful to a lender
  - Manufacturer performance guarantees/warranties
    - Meaningless in BC Ferries case, as the manufacturer was a subsidiary of the ferry company -- not so in the case of TSVs

# MYP Considerations

# MYP: A Lease’s Greatest Advantage

- **MYP generally not granted until after successful OT&E and three or more production lots**
  - **In no case has MYP been granted prior to first production lot**
  - **Navy recently asked for MYP on an untested ship program – denied**
  - **OSD and Congress motivated by same ideal: they do not want to be committed to large numbers of untested items that may prove unsat**
- **Multi-year lease authority is possible prior to OT&E and first production lot**
  - **If items prove themselves to be unsat, gov’t can terminate and return at just a fraction of the cost had it been a MYP buy**
  - **OSD and Congress have already granted approval for MYP leases on untested units prior to first production lot**
- **Studies have shown a 7.4% MYP unit cost savings – more for ships (9% on DDG-51 – probably due to very low production rates)** ***(Source: 2001 RAND study, “An Overview Of Acquisition***

# Termination Provisions

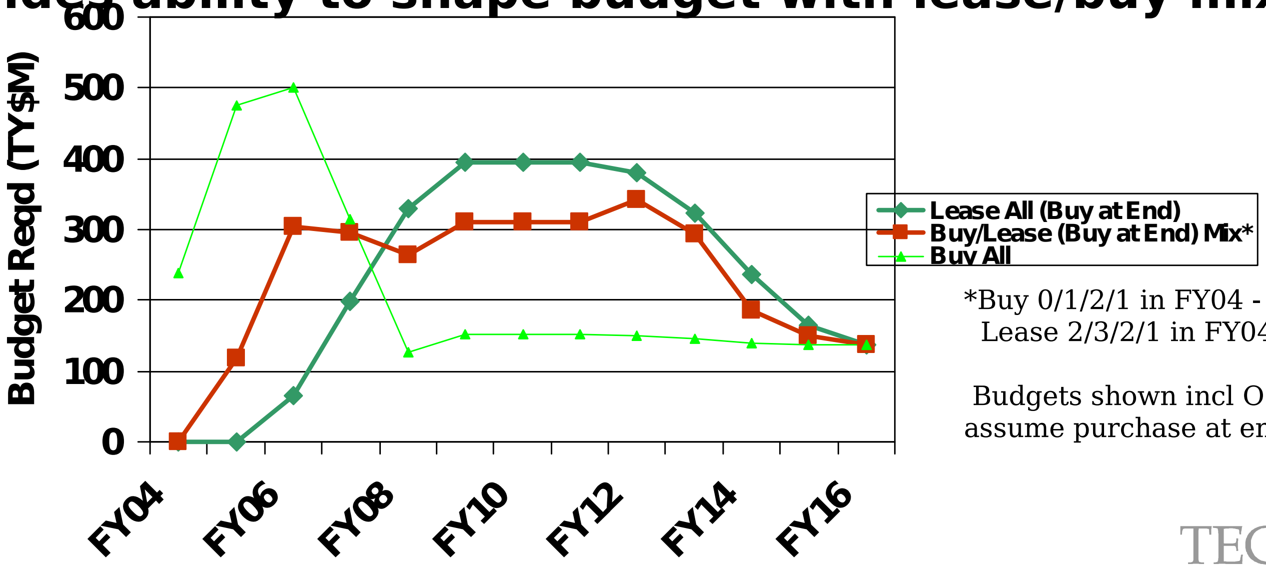
# OMB Circular A-11

- **Per OMB Circular A-11, contract termination clauses relieve budget pressure or aid in gaining statutory relieve from “full-funding” total lease liability in first year**

- **Expect to see the following termination clauses:**
  - **“Pre-construction termination,” nearly identical to MYP cancellation provisions**
  - **“No-termination during construction”**
  - **“All-or-nothing termination after delivery”**
  - **Lease “conversion rights” that, though technically a termination, causes no financial damage and is therefore no-cost**
    - **Pre-negotiated prices for “purchase in lieu of lease”**

# Conversion Rights

- **Ability to convert any item's lease into a purchase at several predetermined points is a key provision**
  - **Purchase with std progress payments (bypass construction loan)**
  - **Purchase just prior to delivery (in place of SPE)**
  - **Purchase at annual lease payment for loan balance**
- **Serves two purposes**
  - **Escape clause if future yield curve inverts**
  - **Provides ability to shape budget with lease/buy mix**




*Buy 0/1/2/1 in FY04 - 07
Lease 2/3/2/1 in FY04 – 07

Budgets shown incl O&M and assume purchase at end of lease

# Indemnification

# Indemnification

- Primary Issue: Third-Party Liability
  - With a lease, the "third party" is the lessor (owner of record)
  - Gov't cannot generally indemnify a third party
- PL 85-804, 1958
  - *"… the President may … in connection with the national defense … enter into contracts …without regard to other provisions of law relating to … contracts, whenever he deems that such action would facilitate the national defense."*
- Executive Order 11610, 1971
  - *Can indemnify risks that are "unusually hazardous or nuclear in nature"*
  - *Approval must take into account the availability, cost & terms of private insurance*
- Applicable FARs
  - FAR 50.403, 52.250-1 and DFAR 250.201-70
- Army Example: Chem Demilitarization
  - Contractor is indemnified for *"contamination resulting from the activities of third parties when the contractor has no control over such activities or parties"* *(source: Bridget A. Stengel, Attorney-Advisor, Industrial Operations Command)*

# Summary

- **Leasing military systems is viable, but complicated**
  - **OMB rules: Lease-vs-Purchase, Termination Liability, Purchase Rights**
  - **New acquisition dimensions: interest rates, bond market dynamics, insurance, commercial resale market**
- **Following the Air Force’s KC-767 precedent, a successful case for leasing TSVs can be made**
- **Significant resistance to leasing still exists in many camps**
- **Successful leases to the Gov’t make their profit in manufacturing, not in the lease itself**
- **Use of an SPE reduces lease costs and relieves the manufacturer of the financing burden caused by**

# BACKUPS

# Termination Liability (TL)

- **Operating lease TL budgeting rules found in A-11, Appendix A, Section 11**

  **…if the contract will include a cancellation clause, an amount sufficient to cover the lease payments for the first fiscal year … plus an amount sufficient to cover the costs associated with cancellation... For funds that are self-insuring under existing authority, only budget authority to cover the annual lease payment is required to be scored.**

- **DoD Financial Management Reg, Vol 2A, Chapter 1 discusses TL**

  **Statutory Waivers. If a program is exempted by Public Law from the requirement to budget for termination liability, the fiscal year increments may be budgeted on a pay-as-you-go basis, providing only sufficient funds to cover the disbursements expected to be made in that fiscal year.**

- **AF received statutory relief for its two leases (similar to MYP language) *prior* to getting OSD & OMB approval**

# OMB Circular A-94

- **Describes a Net Present Value analysis of two competing alternatives: lease versus purchase**
  - **Used to compare the total cost of the two contracting alternatives, given identical delivery schedules, utilization rates, etc.**
  - **Lease:  Higher-interest, later payments**
  - **Purchase: Lower-interest, earlier payments**
- **Key guidance:**
  - **Load “outlays” – rather than obligations -- by year**
  - **Assume items returned at end of operating lease (default authority)**
    - **A-94 calculates *difference*; result does not change if you buy at end of lease**
  - **Use published core inflation rate**
  - **Use A-94 discount rates “for period of analysis” (written guidance), but not if using a series of leases (oral guidance)**
    - **OMB will accept lease term plus construction period; assumes today’s discount rate will stay the same as each new lease is started in the future**

# OMB Circular A-94

- **Key guidance (cont.):**
  - No written guidance on assumed interest rates
    - Commercial bonds tend to fluctuate within fairly tight "spreads" above their Treasury counterparts
      - If gov't (rather than manufacturer) assumes interest rate risk, then an assumption must be made concerning future Treasury rates
    - To be a valid analysis, underlying assumptions on discount rate and interest rates should be equivalent -- based either on today's rates, the published OMB discount rates or future rates
      - Example: If OMB assumes discount rate for Lot 4 will be same as for Lot 1, then the assumption is that Treasury rates will not change in the next 3 years; it would then be inappropriate to use a higher interest rate for Lot 4's lease
    - Based on recent OSD and OMB decisions, you should base rates on spreads against published OMB discount rates

# OMB Circular A-94

- **Key guidance (cont.):**
  - **Use lease's commercial insurance quote; may use same for "imputed" purchase insurance**
    - **OSD/OMB may try to lower self-insurance cost assumption, claiming self-insurance has no profit, while commercial insurance does**
    - **"Profit" argument runs counter to privatization concepts -- "commercial" does not always mean more "expensive"**
    - **Insurance industry is highly competitive -- gov't self-insurance is not**
    - **Because of the industry's highly-competitive nature, profit as well as costs have been driven down – profit on property casualty insurance is near-zero!**
      - "Insurance industry profit has narrowed nearly six-fold in the last decade" *(Source: "Global climate change threatens the insurance industry," E/The Environmental Magazine, Apr 27, 2002)*
      - "The problem in the property-casualty sector, according to industry analysts, is that there are too many carriers for the amount of business that exists. Overall, this sector of the insurance industry does not make a profit on its policies, but it ends up well into the black thanks to returns from investing premium payments. [In 1999] the industry's profit was $27 billion" on on nearly $350 billion of premiums -- a 7.8% return, the same as the bank prime lending rate *(Source: Mattera, Philip, "Federal Intervention In The Insurance Industry," The Corporate*

# OMB Circular A-11 Tests

1) Ownership remains with lessor throughout term of lease: ***owner of record will be SPE lessor*** -- **PASS**

2) No bargain-price purchase option allowed: ***would purchase at FMV, protected by lease rebate*** -- **PASS**

3) Lease term does not exceed 75% of asset's economic lifetime: ***30%*** -- **PASS**

4) PV of minimum lease payments cannot exceed 90% of initial fair market value: ***84%*** -- **PASS**

5) Must be general purpose asset - not government unique: ***configuration is available to commercial customers*** -- **PASS**

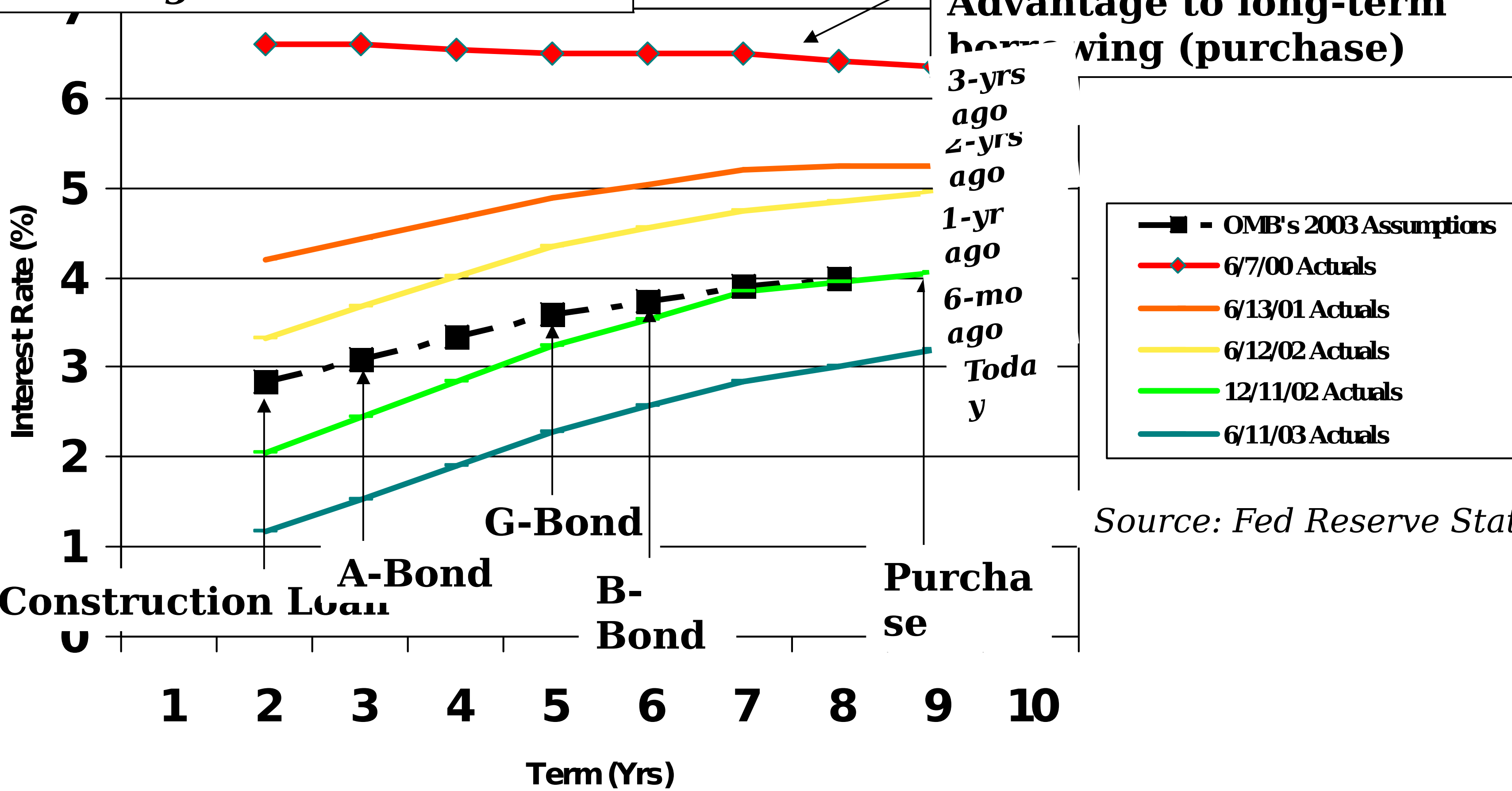
6) Asset must have a private-sector market: ***world-wide used fast ferry market exists*** -- **PASS**

Backu

# OMB's A-94 Yield Curve:
## Impacts on Lease-Purchase Analysis

***Steeper yield curves favor short-term borrowing – advantage to lease***

**"Inverted Yield Curve" – Advantage to long-term borrowing (purchase)**




*Source: Fed Reserve Statistical R*





TECHNOLOGY STRATEGIES ALLIANCES

# OMB’s A-94 Yield Curve:
## Impacts on Lease-Purchase Analysis

- **Results of NPV analysis are little impacted by changes in inflation or overall rate changes, but…**

- **Results are greatly impacted by changing the yield curve *shape***
  - **Using today’s rates produce a *__lease__* savings of 3%**
  - **Using rates of two years ago produce *__lease__* savings of 1%**
  - **Using inverted yield curve of three years ago produces *__purchase__* savings of 3%**

- **Inverted yield curves are unusual -- a good predictor of recession**
  - **Inverted curves are rare; have preceded each of the last 5 recessions** ***(Source: Smart Money and Investopedia.com)***
  - **Inverted yield curves do not last long – a matter of months** ***(Source: Regional Economist, Oct 97)***

- **2003 A-94 rates form a “normal” yield curve** ***(Source: Regional***

# Key Players

- **Potential leasing *allies* can be found in the acq reform-minded, wedded to few dogmas – OSD(AT&L) and Congress**

- **Potential *adversaries* will primarily be found in those with philosophical barriers, such as those who feel leasing is an expensive form of incremental funding – OSD/PA&E & CAIG, OMB and OSD(C)**

- **Warfighter will usually be pragmatic – if leasing gets it here earlier than his *real* alternative COA, and doesn't cause an out-year problem, then he'll support**

# Circular A-11 and Contingent Legislation

Appendix A, paragraph 10

"If the authority to obligate is contingent upon the enactment of a subsequent appropriation, new budget authority and outlays will be scored with the subsequent appropriation."

# C-40/KC-767 Legislative Authority

SEC. 8159. MULTI-YEAR AIRCRAFT LEASE PILOT PROGRAM. (a) The Secretary of the Air Force may, from funds provided in this Act or any future appropriations Act, establish and make payments on a multi-year pilot program for leasing general purpose Boeing 767 aircraft and Boeing 737 aircraft in commercial configuration.

(b) **Sections 2401 and 2401a of title 10**, United States Code, **shall not apply** to any aircraft lease authorized by this section.

(c) Under the aircraft lease Pilot Program authorized by this section:

(1) The Secretary may include terms and conditions in lease agreements that are customary in aircraft leases by a non-Government lessor to a non-Government lessee, but only those that are not inconsistent with any of the terms and conditions mandated herein.

(2) The term of any individual lease agreement into which the Secretary enters under this section shall not exceed 10 years, inclusive of any options to renew or extend the initial lease term.

(3) The Secretary may provide for special payments in a lessor if the Secretary terminates or cancels the lease prior to the expiration of its term. Such special payments shall not exceed an amount equal to the value of 1 year's lease payment under the lease.

(4) Subchapter IV of chapter 15 of title 31, United States Code shall apply to the lease transactions under this section, except that the limitation in section 1553(b)(2) shall not apply.

(5) The Secretary shall lease aircraft under terms and conditions consistent with this section and consistent with the criteria for an operating lease as defined in OMB Circular A–11, as in effect at the time of the lease.

(6) Lease arrangements authorized by this section may not commence until:

(A) The Secretary submits a report to the congressional

expected savings, if any, comparing total costs, including operation, support, acquisition, and financing, of the lease, including modification, with the outright purchase of the aircraft as modified.

(B) A period of not less than 30 calendar days has elapsed after submitting the report.

(7) Not later than 1 year after the date on which the first aircraft is delivered under this Pilot Program, and yearly thereafter on the anniversary of the first delivery, the Secretary shall submit a report to the congressional defense committees describing the status of the Pilot Program. The Report will be based on at least 6 months of experience in operating the Pilot Program.

(8) The Air Force shall accept delivery of the aircraft in a general purpose configuration.

(9) At the conclusion of the lease term, each aircraft obtained under that lease may be returned to the contractor in the same configuration in which the aircraft was delivered.

(10) The present value of the total payments over the duration of each lease entered into under this authority shall not exceed 90 percent of the fair market value of the aircraft obtained under that lease.

(d) No lease entered into under this authority shall provide for—

(1) the modification of the general purpose aircraft from the commercial configuration, unless and until separate authority for such conversion is enacted and only to the extent budget authority is provided in advance in appropriations Acts for that purpose; or

(2) the purchase of the aircraft by, or the transfer of ownership to, the Air Force.

(e) The authority granted to the Secretary of the Air Force by this section is separate from and in addition to, and shall not be construed to impair or otherwise affect, the authority of the Secretary to procure transportation or enter into leases under a provision of law other than this section.

(f) The authority provided under this section may be used to lease not more than a total of 100 Boeing 767 aircraft and

# Congressional Authorization

## Waived for 767 – Not (Yet) for TSV

**Sec. 2401. - Requirement for authorization by law of certain contracts relating to vessels and aircraft -- EXCERPTS:**

The Secretary may make a contract … if … specifically authorized by law… and if… **before a solicitation** for proposals for the contract was issued, the Secretary **notified the {Defense Committees] of the Secretary's intention to issue such a solicitation**; and … provided a detailed description of the terms of the proposed contract and a **justification** for entering into the proposed contract rather than … purchase of the vessel or aircraft.

Funds may not be appropriated for any fiscal year to or for any armed force or obligated or expended for … the lease or charter of any aircraft or naval vessel the terms of which provide for **a substantial termination liability** on the part of the United States, **unless funds for that purpose have been specifically authorized** by law.

… **substantial termination liability** [defined as] an amount not less than … **25 percent of the value of the vessel or aircraft**